

REMARKS

Applicants submit this Reply in response to the final Office Action mailed May 19, 2011. Claims 36-70 are pending in the application, of which claims 44-68 have been withdrawn from consideration. Thus, claims 36-43, 69, and 70 are submitted for examination, of which claims 36 and 69 are independent. By this Reply, Applicants have amended claims 36 and 69. No new matter has been added.

In the final Office Action, the Examiner took the following actions:

- i) rejected claims 36, 38-40, and 43 under 35 U.S.C. § 103(a) as being unpatentable over JP-05031724 ("Hashimoto") in view of U.S. Patent App. Pub. No. 2006/0096696 ("Oku") and JP 57-087939 ("Sato"), and further in view of EP 0209453 ("Faure-Bondat");
- ii) rejected claim 37 under § 103(a) as being unpatentable over Hashimoto, in view of Oku, Sato, and Faure-Bondat, and further in view of Applicants' alleged admission of prior art;
- iii) rejected claims 41 and 42 under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto, in view of Oku, Sato, and Faure-Bondat, and further in view of U.S. Patent App. Pub. No. 2003/0122284 ("Mori"); and
- iv) rejected claims 69 and 70 under § 103(a) as being unpatentable over Hashimoto, in view of Oku, Sato, and Faure-Bondat, and further in view of U.S. Patent No. 3,464,090 ("Cantarutti") and U.S. Patent No. 5,939,002 ("Heindel").

Applicants respectfully traverse all pending rejections for at least the reasons discussed below.

Rejections Under 35 U.S.C. § 103(a)

Applying 35 U.S.C. § 103(a), the Examiner rejected claims 36-43, 69, and 70 as set forth above. However, a *prima facie* case of obviousness, the requirements of which are discussed below, has not been established for each rejected claim.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must disclose all of the claim limitations, or the claim rejection must explain why the differences between the prior art and the claim limitations would have been obvious to one of ordinary skill in the art. See M.P.E.P. § 2141.

A *prima facie* case of obviousness has not been established because, among other things, Hashimoto, Oku, Sato, Faure-Bondat, Mori, Cantarutti, Heindel, and Applicants' allegedly admitted prior art, alone or in any combination, fail to teach or render obvious every feature of Applicants' amended independent claims 36 and 69. Specifically, no reference cited by the Examiner teaches or renders obvious at least, "wherein said first and second elongated elements are each one interposed between two mutually opposite sides of the other," as recited in amended independent claim 36. Amended independent claim 69, although of different scope, recites similar features.

In the Office Action, the Examiner concedes, "Hashimoto is silent regarding the construction of the bladder and the interface profile between the two elastomer materials. In an attempt to cure this admitted deficiency, the Examiner cites Oku, asserting, "Oku teaches a method of making a multi-layer rubber composite (see [0013]) wherein two different rubber materials are co-extruded as a continuous strip that is

wrapped around a rotating toroidal support such that the strip forms circumferential coils in a side-by-side relationship wherein the layers are mutually coupled along their longitudinal extension (see [0015]-[0017]). As taught by Oku, the interface between the two layers is undulating (see Figure 2).” Office Action at 2-3.

Applicants respectfully disagree with the Examiner's characterization of Oku. In fact, as Oku expressly states at paras. [0044] and [0046], Figs. 2 and 4 are merely diagrammatic section views of respective embodiments of the invention. In such diagrammatic section views, the single coils formed by the band-shaped material appear represented as having a squared rectangular cross-section with sharp corners defining an undulated zig-zag shape in the interface profile between the first and second layers.

However, one of ordinary skill in the art would recognize that such diagrammatic representations do not accurately reflect the actual interaction between the first and second layers. Indeed, it is well known that uncured rubber material has an extremely weak structural consistence. As a consequence, it is impossible for the band-shaped uncured rubber material to maintain a squared, sharp-angled cross section when laid on the surface of the rotating support. More particularly, with reference to Fig 2 of Oku, the radially inner corners of the coils formed by the first band-shaped uncured rubber material A would flatten against the rigid surface of the rotating support. The radially outer corners of the coils would be subjected to flattening too, at least due to shearing stresses caused by flexion and other deformations necessarily imposed during the winding step. An additional flattening would be obtained when the second band-shaped uncured rubber material is wound on the first layer formed by the first band-shaped

rubber material. Thus, despite the schematic representation of Figs. 2 and 4, practice of the method taught by Oku would provide a flat or substantially flat interface profile between the first and second layers rather than “mutually coupled by an undulated interface profile,” as recited in amended independent claim 36. As a result, and contrary to the Examiner's assertions, one of ordinary skill in the art could not actually derive from Oku any useful teaching directed to an undulated interface profile between the first and second layers.

Nonetheless, even assuming, *arguendo*, that the Examiner's characterization of Oku is accurate, nowhere does Oku teach or render obvious at least, “wherein said first and second elongated elements are each one interposed between two mutually opposite sides of the other,” as recited in amended independent claim 36. This feature facilitates, as a consequence of spirally winding, an undulated interface profile having a relevant wave height, as clearly illustrated in the examples of Figs. 2 and 5, and/or undercut constraints 10b as in the example of Fig. 7. By contrast, Oku fails to teach or render obvious such features.

Further, the Examiner's additional citation of Sato, Faure-Bondat, Mori, Cantarutti, Heindel, and Applicants' allegedly admitted prior art fails to cure the deficiencies of Hashimoto and Oku, as those references similarly fail to teach or render obvious, “wherein said first and second elongated elements are each one interposed between two mutually opposite sides of the other.”

For at least these reasons, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of amended independent claims 36 and 69

under 35 U.S.C. § 103(a) over Hashimoto, Oku, Sato, Faure-Bondat, Mori, Cantarutti, Heindel, and Applicants' allegedly admitted prior art.

Moreover, claims 37-43 and 70 each depend from one of independent claims 36 and 69, and thus, contain all the elements and limitations thereof. Accordingly, Applicants also request that the Examiner reconsider and withdraw the § 103(a) rejections of dependent claims 37-43 and 70, as they are allowable at least due to their corresponding dependence from one of independent claims 36 and 69.

Claim Scope

It is to be understood that Applicants are in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and/or shown in the drawings. Rather, Applicants believe that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

If the Examiner believes that a telephone conversation might advance prosecution of this application, the Examiner is cordially invited to call Applicants' undersigned attorney at (404) 653-6435.

Applicants respectfully note that the final Office Action contains a number of assertions concerning the related art and the claims. Regardless of whether those

assertions are addressed specifically herein, Applicants respectfully decline to automatically subscribe to them.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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